

ASSESSING
READER/TEXT
RELATIONSHIP

STRATEGIES +
TEXT



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Comprehension Definitions, Issues, and Directions

preview

This chapter introduces the concept of “comprehension first” and explores why inquiry-based comprehension instruction needs to be a high priority in the classroom. I begin to build, and help you build, a new view of comprehension that is more consistent with 21st-century demands. The chapter includes

- definitions of *comprehension*, *big ideas*, *inquiry*, and other key concepts that relate to literacy.
- an introduction to the information teachers need to evaluate comprehension instructional options.
- a profile of common comprehension problems and common literacy needs of all learners.
- an overview of the five factors that influence comprehension success.

important questions



Use these questions to guide your thinking during reading.

1. What does "comprehension first" mean? Why is this concept vital?
2. How does a teacher's definition of comprehension affect how he or she teaches?
3. How would the adoption of a definition of literacy that considers real-world demands (including workplace expectations and technology) change comprehension instruction?
4. What is the status of student reading/comprehension achievement in the United States? What does the current status suggest about instruction?
5. What are common characteristics of students with comprehension difficulties?
6. What conditions are recommended to meet children's basic literacy needs?
7. What five factors influence comprehension, and how are they important to boosting achievement?
8. What role can Comprehension Problem Solving (CPS) play in putting comprehension first?

Introduction

The goal is lifetime, not school time readers.

JIM TRELEASE

A book's title should say a lot. In fact, an effective way to start a discussion about a book is to ask, "What does the title mean?" A good title captures the book's big idea on several levels. For example, the title of *Charlotte's Web* doesn't simply refer to the literal web the spider spins. At a deeper level, the web has to do with qualities that, when woven together, create true friendship—qualities such as listening, compassion, and self-sacrifice. Charlotte's web is also her tool for snaring food—an instrument of survival for Charlotte, but also a deadly trap for other creatures. Readers are forced to consider how life is connected to death in the great web of existence. This is a very big idea.

The title of the book you are holding is also intended to operate on several levels. "Comprehension First" summarizes the biggest idea in teaching reading today (RAND Reading Study Group, 2002, p. xi). No Child Left Behind (NCLB) legislation put reading on the front burner, but the research report that informed this law emphasized that its components are not equal. Four of the NCLB components (phonemic awareness, phonics, fluency, and vocabulary) are *means* to reach the fifth: comprehension (National Reading Panel, 2000). Literacy experts widely acknowledge comprehension to be the goal of reading, with other components serving as sub-skills. Comprehension is what reading is all about. Indeed, comprehension is the "sine qua non of reading" (Beck & McKeown, 1998).

The title *Comprehension First* is also a play on "Reading First," the name of the program through which schools received funds to implement the reading portion of NCLB. Unfortunately, many Reading First schools missed essential details or misread key research conclusions regarding the subordination

of phonemic awareness, phonics, vocabulary, and fluency to comprehension (Walker, H., 2009). As a result, many programs taught sub-skills as curricular ends. Six billion dollars later, students in Reading First schools comprehend no better than students in schools that did not receive funds (Institute for Educational Sciences, 2008).

Moving comprehension to the front of the instructional line for all American students is long overdue (Walker, B., 2009). To do that, clear, understandable definitions for key literacy concepts are needed.

classroom snapshot

OPERATING DEFINITIONS

What a person knows and believes influences how she or he acts. It follows that any teacher's definition of comprehension determines the nature of his or her instructional practices. Consider the following short classroom snapshots. Think about how each teacher *implicitly* defines comprehension.

Teacher A is working with a small group. She instructs the students to read a short picture book independently. After they all seem to be finished, Teacher A begins with questions, such as, "Who were the characters?" and "What happened first, second, third, and so on, in the story?" Teacher A informally assesses, using a clipboard to record "correct" and "incorrect" answers.

Teacher B distributes a set of questions to guide the reading of part of a chapter in the social studies book. He asks the students to read silently and use sticky notes to mark parts of the text that help answer the questions. The students then individually write answers to the questions, using the text. At the end of the class, Teacher B collects their answers and grades the papers.

Teacher C tells her students to read a short story and focus on being able to retell what it is about. After they read, she gives the students a story map and asks them to fill in information about the characters, setting, plot events, and themes. Teacher C uses a rubric to grade each student's work, with "very detailed and accurate" being the criteria for an A in comprehension.

Teacher D prepares a multiple-choice worksheet for students to show their comprehension of a science article. The worksheet directs students to identify main ideas and details stated in the article. The students read the article and then work in small groups. Teacher D collects one worksheet from each group, at random, and everyone in the group gets the same comprehension grade.

None of these teachers has explicitly defined what is involved in comprehension, but their teaching strategies and activities do give clues about their knowledge and beliefs. Decide for yourself what their behaviors imply. You will be invited to reexamine these snapshots at the end of this chapter, or you may choose to look ahead now to Snapshots Revisited on page 21.



OT Cont

Why Comprehension First?

As in the fable of the blind men who attempted to comprehend an elephant by each examining only one body part, each of Teachers A–D seems to use pieces of the whole of effective comprehension instruction. None explicitly states what comprehension is, but it is apparent that these teachers all operate on the basis of some unstated definition. Moreover, while Teachers A–D all use *common* comprehension practices, they all also deviate from instructional principles agreed upon by literacy experts. For example, the practices of merely calling attention to comprehension skills (e.g., “Each paragraph has a main idea”) and of assigning reading followed by testing information recall came into question over 30 years ago (Durkin, 1978–79). Nonetheless, many teachers continue to rely on questioning for recall, with only about 6 percent asking higher-level questions that require students to connect textual information to their lives and feelings (Taylor et al., 1999).

Concerns about traditional methods of learning come from psychologists, such as scholar Ellen Langer. Langer (1997) argues that students are taught to engage in “mindless behavior” when traditional methods focus on overlearning a task, with the implication that there is only one way to do it, regardless of the conditions. Quality comprehension instruction aims to develop “mindful” learners by teaching them to use strategies flexibly, from the beginning. However, even “accomplished” teachers continue to use a paucity of effective comprehension practices; fewer than 1 percent of teachers provide quality instruction for comprehension skills and strategies (Taylor et al., 1999). Pressley (2001) concludes that “there is no evidence of much comprehension strategies instruction occurring extensively now and certainly no evidence of children being taught such strategies to the point that they use them in a self-regulated fashion, which is the goal of such instruction” (*not paginated*).

When it comes to learning anything, time on task matters, but time devoted to comprehension instruction remains a fraction of the literacy instructional budget. Since comprehension is widely acknowledged to be the essence of reading, we need to reorder our instructional agendas and reallocate time in order to put comprehension first. There is some movement in that direction (Block, Paris, & Whiteley, 2008; Brown, 2008). In one study, time spent on comprehension instruction was found to have increased to 25 percent from the less than 1 percent Durkin observed in 1978 (Block, 2004). But what is important isn’t just *how much* time is spent on comprehension, but how the time is spent. This book explores how comprehension instructional time can be spent to achieve the best results.

Educational research, such as that of Dolores Durkin, continues to inform comprehension instruction, but there is a change force operating today that is even more powerful than this research. The worldwide communication revolution is now going full-steam, driven by the engine of technology. This communication revolution makes an education revolution necessary, and, according to Pressley (2000), educators are poised for one in the teaching of reading. Learning is “no longer fixed in time and space” (Richardson, 2009,

p. 29). In a world where students blog, twitter, tweet, and flickr, it behooves educators to consider the kind of comprehension instruction that will prepare students for "mindful" thinking about texts from sources such as MySpace, Facebook, and YouTube. Martin Luther King's concept of the "fierce urgency of now" applies. To begin with, we need to reconsider our definitions of comprehension, literacy, and reading in light of the realities of the 21st century. Instruction must be crafted to align with these key literacy concepts.

Definitions Matter

Definitions provide focus and serve as goals or destinations. Goals give vision; without vision, "the teacher is left to sway and sputter as a candle facing the winds of curricular change" (Gambrell, Malloy, & Mazzoni, 2007, p. 17). To focus instruction, each teacher needs to self-assess what he or she knows about comprehension (the destination) and then determine the instruction students need to get there (the route).

Comprehension can be conceived as an inquiry-based problem-solving process. The Comprehension Problem Solving (CPS) process that is a focus of this book incorporates thinking strategies and questions at the heart of this process. The goal of CPS is to construct meaning from diverse texts by deriving and generating big ideas. When CPS is placed at the center of literacy and content area instruction, comprehension is moved to the forefront of education where it belongs.

The following key definitions were synthesized from sources educators customarily use to design instructional programs in any literacy area. These sources included decades of literacy research, constructivist philosophy (beliefs about how people make meaning), and professional wisdom gained from accumulated teaching experience. Constructivist theory (e.g., see Cambourne, 2002) assumes people can and should create their own understandings—so I offer these definitions as drafts to help you

- self-assess your current understanding.
- create personally meaningful definitions, with these as possible starting points.
- derive instructional ideas congruent with the definitions (i.e., develop if-then statements).

These key concepts can become part of your personal dictionary for curricular decision making. Understanding them is foundational to envisioning comprehension instruction suited to the needs of 21st-century students.

LITERACY

Literacy is the ability to communicate thoughts, ideas, feelings, and emotions effectively through comprehension (understanding) and composition (expres-

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sion). Central vehicles of communication are (1) the language arts (listening, reading, speaking, and writing) and (2) the fine and performing arts (visual art, drama/theatre, dance, and music). In the 21st century it is widely acknowledged that students require "new literacies." A multidimensional view of literacy now includes technological/computer literacy (i.e., ability to use the Internet; to "blog," or produce a weblog, as well as to read blogs; to play console games; and to send and read instant messages) and math literacy (Biancarosa & Snow, 2004; Braunger & Lewis, 2006; Gambrell, Malloy, & Mazzoni, 2007).

READING

Reading, one aspect of literacy, focuses on constructing or making meaning using information *received* from word-based and non-word-based texts such as works of art. Eisner points out that we can "take" meaning from texts, but the meaning we "make" is more important (2002a). Taking meaning involves finding or extracting literal information. *Making* meaning is a more active process, one that requires thoughtful interaction with texts. "Making meaning" summarizes the central problem to be solved when a reader encounters a text (NCTE, 2004)—with "meaning" including thoughts, ideas, feelings, and emotions (see the definition of "literacy" above). A paraphrase of the definition for reading is "constructing, creating, or composing sense from any text."

COMPREHENSION

Comprehension is both a process and a product. It is cognitive action that takes the form of a *problem-solving process* used to take and make meaning from print and non-print texts. In other words, comprehension involves both "extracting and constructing" generalizations, theme statements, or *big ideas* from any text used for information or enjoyment (NCTE, 2004; RAND Reading Study Group, 2002). Comprehension is also the *end product* of the problem-solving process, that is, the content or ideas learned from reading, viewing, or listening to a text.

Comprehension (understanding) and composition (expression) both involve *created meaning*. Prior to the 21st century, definitions of comprehension focused on "intentional thinking," and "meaning construction" related to the interaction between a word-based text and a reader (Durkin, 1993; Harris & Hodges, 1995). In literacy education, *composition* meant written expression using words.

Today it is acknowledged that readers use common comprehension processes, such as prediction and analysis, to understand both word-based and wordless texts and combinations of the two, such as multimedia work (Cornett, 2011; Gambrell, Malloy, & Mazzoni, 2007; NCTE, 2004). Comprehension is the goal across disciplines, and it is achieved through the purposeful use of a common body of thinking strategies. In addition, we now understand that expression of meaning (composition) can result in word-based (oral or written) and wordless forms, such as visual art, music, and dance compositions.

TEXT

A text can be any word-based or non-word-based source of meaning (ideas and/or feelings). It is no longer useful to conceive of literacy solely in terms of reading and writing word-based texts. We are in the midst of an "explosion of alternative texts that . . . incorporate multimedia and electronic options" (RAND Reading Study Group, 2002, p. xv and 14). While word-based texts still occupy pride of place in schooling, visual texts, such as the ancient Chauvet cave paintings in France, are evidence that humans communicated through arts-based texts thousands of years before written words were used. Indeed, written texts began to appear only about 5,000 years ago (e.g., symbolic language, such as cuneiform).

We seem to have gone "back to the future" with the increasing use of arts-based or non-verbal texts to understand and express meaning. Visual and musical texts rich in movement and drama now dominate communication technologies such as the iPhone. Why? Because arts-based texts expand communication to include ideas and feelings that are often "beyond words" (Eisner, 2002b). The nature of modern communication demands that we teach students "multiple and overlapping forms of literacy, including digital, visual, spoken and printed forms that constitute the act of constructing and expressing meaning today" (Gambrell, Malloy, & Mazzone, 2007, p. 42).

BIG IDEAS

Big ideas are complete thoughts that grow out of themes in literature and generalizations in content areas. Big ideas are core truths about people and the world. They represent the life lessons and deep understandings readers, listeners, and viewers take from verbal and non-verbal texts. They are more than the main ideas of paragraphs. Big ideas are associated with whole texts (Walmsley, 2006). They are the main points of books, plays, and films. Big ideas take these forms: moral, theme, thesis, contention, argument, conclusion, proposal, proposition, claim, premise, assumption, hypothesis, postulation, or supposition.

Big ideas are the most important meanings that readers, listeners, and viewers take and make from texts. *Concepts* are the seeds of big ideas. For example, the concepts of love, loneliness, and greed become big ideas when they appear in statements such as: *There are different kinds of love. You can be lonely even in a crowd. Greed is a sign of fear of loss.*

In literature, big ideas are conclusions that the author may state explicitly or directly. They may also be hidden or implied. Authors and artists state or imply big ideas by giving clues that readers can use to synthesize understanding. In the literary arts, a theme can become a big idea when the author expands the theme into a full statement. In nonfiction texts, big ideas may be called generalizations. Big ideas represent messages from whole texts (Walmsley, 2006). On a large scale, big ideas form the basis of theories like the "Big Bang" or evolution, which are supported by premise statements or assumptions.

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IMPORTANT QUESTIONS

The path to extracting and constructing big ideas is to ask questions before, during, and after reading, listening to, or viewing a text. *Important questions* are open-ended queries people make as they work through the scientific method, the writing process, or the Comprehension Problem Solving process. These questions have a range of possible answers and often begin with *Why*, *How*, or *What if*.

Important questions lead to big ideas. The ability to ask such questions is an essential skill all teachers need in order to provide effective comprehension instruction. More important, students need to be taught to self-question before, during, and after encountering any text if they are to become independent and continue to develop comprehension abilities.

INQUIRY

The subtitle of this book includes the key word *inquiry*. This word means more than a teacher's questioning to test student recall. Inquiry is a *personal* search for meaning set in motion by interest in a problem. The problem may be straightforward, or it may involve a complex series of questions. When teachers raise provocative questions and encourage students to ask their own, students are more likely to assume an inquiring stance.

Inquiry involves a quest, and quests always engage problem-solving thinking. For example, I become an inquirer when I search the Internet for the best route to Nashville, where I'm going to teach at a summer institute. The problem is personally relevant, and the question is obvious: How can I get to Nashville from Cincinnati on good roads and in good time?

More complex inquiry occurs when I choose to read a memoir such as *Reading Lolita in Tehran* (Nafisi, 2003), about an Iranian literature professor who, after losing her job, invited a group of female students to her home each week to study banned books. While I might begin with the problem of needing some pleasurable reading for relaxation, I also start with questions based on the book's reputation: What would motivate a teacher to do something so blatantly illegal, by Iranian standards? How might I myself respond to living under a tyrannical regime, without basic freedoms, especially for women? Personal questions like these cause me to become more mindful about what I read, even when I am reading for pleasure. My choice to inquire about big ideas increases my reading pleasure, because inquiry increases engagement. As I read Nafisi's memoir, I generate more questions: How can good literature cause students to think more independently? What leads this teacher to take such risks? How much would I risk to remain free to teach material I thought was right, and in a manner I thought was justified?

In summary, inquiry is personal meaning making, directed by questioning, used throughout the before/during/after comprehension process. Inquiry is investigation into a problem. For comprehension purposes, the overarching problem for the reader is how to make sense from texts in ways that are personally meaningful. Inquiry centers on ongoing questioning of your own thinking

and of other sources or texts that you consult during problem solving. The result of inquiry is that, when readers take this stance from the beginning, they comprehend more and better (Gambrell, Malloy, & Mazzoni, 2007).

Next, I discuss comprehension achievement as part of the purpose of this chapter, which is to establish the need for changing comprehension instruction.

Comprehension Achievement: Facts and Issues

If this book were a newspaper, these might be the headlines:

Society and Workplace Demand Higher Proficiencies Than Schools

High School Graduates Not Prepared for Post-Secondary Options

Reading Declines Have Serious Civic, Social, Cultural, and Economic Implications

These fictional headlines are drawn from real stories about the state of American literacy achievement (Gambrell, Malloy, & Mazzoni, 2007, and Pennsylvania Department of Education, 2004; Torgesen, 2006; and NEA, 2007, respectively).

Thirty-eight percent of employers rate high school graduates deficient in reading comprehension, and 72 percent rate graduates deficient in writing. These facts are most troubling in light of the strong correlation between reading prowess and higher income and more job opportunities. In addition, individuals who read better (i.e., comprehend better) also vote more, volunteer more, and do more charity work. Readers also attend more cultural arts events, exercise more, and are more involved in sports (NEA, 2007).

This information, as well as that in the following sections, shows why the time is right for a revolution in teaching to put comprehension first.

WHAT DO THE TEST SCORES SHOW?

At present, the National Assessment of Educational Progress (NAEP), our only nationwide standardized test, reports that overall reading scores of high school students remain inadequate and flat, having changed little in decades (U.S. Dept. of Education, 2003–2007). Alarming gaps between poor and affluent, majority and minority students persist. Progress benchmarks for fourth and eighth graders are not resulting in high percentages of high schoolers who successfully comprehend the real-world variety of texts. Merely measuring success grade by grade has not worked. Nor has an instructional model based on the premise that phonemic awareness + phonics + sight words = increased comprehension (IES, 2008). This model is analogous to assembling computer parts only to find that the finished machine can't access the Internet. Putting pieces together doesn't automatically make a coherent whole. This was dramatically demonstrated with the multi-billion-dollar Reading First experiment, which concentrated on reading sub-skills and produced no significant differences in comprehension. As one principal put it, "We missed the boat" (Walker, H., 2009, p. 18).

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IS TESTING MORE A SOLUTION?

Testing has become a preoccupation of politicians and educators. Is it helping to address the comprehension issues that the "headlines" above suggest?

Recently I visited a Tennessee school where a kindergarten teacher was preparing for a weekly individual check of reading rate and accuracy with a young boy.

"They just can't do it," she whispered to me. "Some of these babies can't button their shirts, and I'm drilling them on sight words. They have to have 40 by year's end. I hate it and so do they."

I listened and watched as the small boy struggled through the task. He pushed his stubby index finger along the page as if mashing harder might help. Repeatedly he looked up at his teacher, who was forbidden to help him. She eventually rubbed his back and told him to go on back to the classroom.

"The whole school goes through this every Friday," she said sadly. "It is such a waste."

I've heard teachers in dozens of states express the same feelings. State and local testing eats away at precious teaching time. Testing is conducted too often and is too threatening. In Ohio, I met a teacher who also ran a hog farm. He put it this way: "My hogs won't get any fatter if I weigh them more often." Such down-home wisdom is refreshing in the face of increased demands for testing—especially since there is no research that shows more testing will boost student achievement.

Despite the Reading First schools' poor showing in comprehension achievement (IES, 2008), scores at the elementary level have improved in some districts. The reasons why, however, are not clear. Before No Child Left Behind legislation went into effect, school districts had already been aligning curricula to focus on student performance standards created by professional associations such as the International Reading Association (IRA) and the National Council of Teachers of English. Any claims that federally mandated reform has caused improvements have to account for the effects of the pre-existing standards movement.

WHAT IF THE TESTS WERE CHANGED?

High school graduates now face a workplace that often requires employees to comprehend and navigate complex texts, including Internet multimedia hypertext. It is no longer enough to be able to read words from left to right and follow literal directions. Workers are expected to solve problems creatively, employing judgment and using diverse texts, including digital sources (Gambrell, Malloy, & Mazzoni, 2007; Partnership for 21st Century Skills, 2008).

Educators across the country know this. For example, on Florida's state test, the proportion of thoughtful questions increases progressively. At the third grade, 30 percent of the questions require higher-order thinking; by the tenth grade, 70 percent of the questions require higher-order thinking. In addition, in response to the need for readers' stamina to increase progressively, the average length of test passages grows from 325 words at the third grade to

1008 words by the tenth grade (Torgesen, 2006). Unfortunately, comprehension achievement hasn't increased. Florida students showed a steady *decrease*, with 71 percent at grade level in grade four and only 32 percent at grade level by grade ten. Asking higher-order questions on tests and giving students more to read has not resulted in improvement.

HOW DO DEFINITIONS AFFECT ASSESSMENT?

How schools *define* reading affects educational goals, assessment methods, and, in turn, results. One district may decide that reading ability can be assessed by asking students to choose the main idea from multiple-choice items, while another expects students to read a passage and generate a statement of an important theme. These two very different tasks imply contrasting definitions—one relies on literal thinking and the other on synthesis of ideas to construct meaning.

At the state level, education leaders can choose to buy or make their own tests, use their own definition of reading, and set levels for appropriate progress and proficiency. For example, one test used in many states, labeled a reading fluency test, assesses accurate and speedy word pronunciation. The assumption is that word pronunciation is a way to measure reading achievement, despite research that shows a low correlation between comprehension and word pronunciation (Duke, 2001; Duke, Pressley, & Hilden, 2005; Pressley, 2006). Essentially, schools can choose simplistic definitions of reading, teach to those goals, and get what they teach—low levels of thinking. Under such circumstances, it is not surprising to find high school students who cannot comprehend even at a basic level.

WHY AREN'T THE READING COMPONENTS EQUAL?

As mentioned previously, the misreading of NCLB, and Reading First in particular, has caused schools in many states to emphasize reading components other than comprehension (Walker, H., 2009). According to the National Reading Panel report used in NCLB legislation, phonics, phonemic awareness, vocabulary, and fluency are building blocks to comprehension. Members of the professional reading community varied in their support for NCLB, but they are in consensus about this point: there is no reading without comprehension. Comprehension is the tabletop; the other components are supporting legs. School districts and states that concentrate instruction and assessment on the four sub-skills, without subordinating them to comprehension, end up winning little battles but losing the war against illiteracy (IES, 2008).

Although research has established a strong correlation between vocabulary development and comprehension success (e.g., see Graves & Watts-Taffe, 2002; National Reading Panel, 2000), correlation between phonics and comprehension achievement is far from strong. Phonics skill does not guarantee comprehension, and the correlation becomes weaker as students mature. The same is true for oral reading fluency (narrowly defined as accurate and speedy word pronunciation) and comprehension (e.g., Nation & Snowling, 1998; Paris et al., 2005). In fact,

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The Role of Phonics in Comprehension

The complicated relationship between word recognition (e.g., using phonics to decode) and comprehension was demonstrated in one study of students ranging from 7.5 to 9.5 years old. Thirteen and a half percent had good word recognition but poor comprehension. An examination of *low-performing* readers of the same age showed that 27.8 percent had good word recognition but poor comprehension (Shankweiler et al., 1999). Low-performing readers have a much greater than average tendency to show good word recognition and poor comprehension.

In a confirming study, 3 percent of fourth graders demonstrated good word recognition but poor comprehension,

while 19.5 percent of fourth graders with reading difficulties had good word recognition but poor comprehension (Duke, 2007, citing Catts & Hogan).

It is simplistic and unwarranted to assume that all low-performing readers need more phonics or sight word instruction. Phonics is one tool to decode words, and it may or may not lead to comprehension. It is not *the* solution to comprehension problems.

An American Federation of Teachers publication puts it this way: "A child cannot understand what he cannot decode, but what he decodes is meaningless unless he can understand it" (Moats, 1999, p. 18).

there are documented cases of hyperlexic students who read words aloud very well but have no understanding (e.g., Nation, 1999; Sparks, 2004).

A concept of reading based on a narrow interpretation of the five-component reading model misrepresents what good readers do and what struggling readers need. Comprehension is much more complex than building up skills related to phonemes, spelling-sound patterns, and word pronunciation accuracy and speed.

To help remedy the shortcomings of this model, the two immediate past presidents of the IRA have proposed additional components (e.g., motivation, integrating writing with reading) to map more accurately the route to comprehension success (Allington, 2005c; Gambrell, Malloy, & Mazzoni, 2007). The comprehension practices suggested in this book reflect these recommendations, as well as those of other literacy experts.

WHAT IS THE STATE OF READING ACHIEVEMENT IN THE UNITED STATES?

A conservative estimate is that some 11 million adult Americans are illiterate. These individuals are not able to comprehend well enough "to function in society, to achieve one's goals, and to develop one's knowledge and potential" (U.S. Dept. of Education, 2005). Ready Resource 1.1 summarizes aspects of the illiteracy problem. Take a look and decide for yourself.

1. How do American students stack up internationally?
2. What seems to be the relationship between poverty and achievement?
3. What happens at the high school level that might stymie comprehension achievement?

Research digest: reading/comprehension achievement.

Failure to learn to read reflects an educational and public health problem affecting economic security and overall well being.

REID LYON, NATIONAL INSTITUTE FOR CHILD HEALTH AND DEVELOPMENT

- 20 percent of Americans read at the second-grade level or below.
- 34 percent of all fourth graders scored below basic.
- Fourth graders have made steady gains since 1992, but in some states the percentage below basic is as high as 61 percent (DC), 48 percent (LA), and 49 percent (MI).
- 60 percent of students have some degree of problem in learning to read. Only about one in three children learns to read with relative ease.
- 40 percent of African American and Hispanic high school students cannot read at the basic level. (According to the 2000 Census, more than 380 languages and dialects are spoken in the United States, with Spanish second to English. Since 1990, the Hispanic population has grown 60 percent.)

INTERNATIONAL GAP

- American fourth graders rank among the best in the world, but the ranking steadily declines after fourth grade.
- In international comparisons of reading, American eleventh graders place close to the bottom, behind students from developing countries such as the Philippines and Indonesia.
- Reading achievement in the United States has declined for twelfth graders since 1992.

MAJORITY/MINORITY GAP

- Gaps persist for poor children, ethnic/linguistic minorities, and urban children in comparison with richer Caucasian and Asian counterparts.
- African American students have made gains, but a 27-point gap between black and white fourth graders remains.
- While 34 percent of fourth graders are below basic proficiency (unable to read a simple book with fluency), the level is as high as 57 percent among African Americans and Hispanics.

RICH/POOR GAP

- 75 percent of dropouts report reading difficulties. Most are from poor families.
- Disadvantaged children may start school with half the vocabulary of a middle-class student.
- Low-income kindergartners speak 5,000 words on average, versus 20,000 for middle-class children.
- Advantaged children have had, on average, 5,000+ books read to them by kindergarten.
- By middle school, low socioeconomic status can be two grades behind.

GENDER GAP

- 20 percent of high school girls and 33 percent of boys can't read at the basic level. (The NAEP underestimates the problem, because dropouts don't take tests.)

LAWFUL/CRIMINAL GAP

- 50 percent of youths with criminal records have reading problems. Some states predict the size of prisons needed in the next decade on the basis of fourth grade failure rates (*USA Today*, p. 2A).
- 58 percent of drug abusers have a history of reading problems.

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Sources: Allington, 2002a; Hart & Risley, 2003; McCardle & Chhabra, 2004; NAAL, 2005; National Center for Education Statistics, 2007; NAEP, 2003–2007; RAND Reading Study Group, 2002; Snow, 2004; *USA Today*, 2001.

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4. What patterns of achievement do you notice among differing groups (e.g., majority vs. minorities; differing genders)?
5. Which factors associated with reading failure could educators address, and how might they do this?

Howard Gardner, noted multiple intelligences theorist, points out that it is possible to forecast a student's chance of completing college and eventual income by the child's ZIP code. Indeed, statistics support his conclusion. Children who live in poor communities are more likely to have low achievement. Of course, many students from minority groups are poor (Au, 2002). Other disturbing facts include:

- On average, children who watched one hour of television a day scored 224 on the NAEP, those who watched four to five hours per day scored 213, and those who watched six or more hours scored 196. The last statistic was found in 13 percent of white students, 20 percent of Hispanics, and 40 percent of blacks.
- One quarter of African American and Hispanic students change schools each year, and they change more than three times by third grade; this is true for 13 percent of whites.
- 38 percent of black children, versus 75 percent of whites, live with two parents. (U.S. Dept. of Education, 1992–2000)

Then there is the "mother factor" (Guthrie, 2004). The odds are that a student who is rich, female, Asian, or Caucasian and has an educated mother won't have trouble learning to read. If the student is a poor male from an ethnic or linguistic minority and has an uneducated mother, he is likely to have trouble learning to read. At least that's what the numbers predict.

Teachers can't alter the ethnicities, genders, or family incomes of students. We can't boost the education level of our students' mothers. So what can educators do? To find solutions, we must have a clear grasp of the extent of comprehension achievement problems. We have to know the facts and acknowledge that there are "no quick fixes" (Allington & Walmsley, 2007).

If we keep doing what we've been doing, the bottom line will stay the same. Right now, the truth is that children usually don't close the gap. Most never catch up (Juel, 1988). Here are some additional statistics:

- Two-thirds of students with disabilities have learning disabilities, and the bulk of those students have reading problems.
- There is a 90 percent chance that a poor reader at the end of first grade will still be a poor reader in grade four (Juel, 1988).
- Almost 75 percent of students with reading disabilities in third grade still have problems in ninth grade (Francis et al., 1996).
- Comprehension is the biggest problem for struggling readers from third grade on (Farstrup & Samuels, 2002; RAND Reading Study Group, 2002).

The hope lies in doing things differently. That means a revolution in comprehension instruction.

Solving the Problem: A Comprehension Revolution

The promise of revolutionizing comprehension instruction lies with teachers who will reject conventional practices and embrace "inventional" thinking needed for success in the third millennium. We need teachers who can "think unconventionally, question the herd, imagine new scenarios, and produce astonishing work" (Partnership for 21st Century Skills, 2008). What's more, we need teachers who can teach their students to think in these ways. How can we accomplish this revolution? In a nutshell, we must revision the concept of comprehension in light of 21st-century living conditions.

PUTTING COMPREHENSION FIRST

Putting comprehension first on the literacy agenda means more than adding minutes to comprehension instruction. Creative thinking is necessary to produce a different kind of instruction. Of course, all quality instruction depends on assessment to determine the learner's strengths and needs, followed by alignment of instructional practices with assessment results. Key instructional practices include:

- creating supportive learning contexts.
- clearly defining the comprehension task (both process and product).
- teaching students how to manage diverse texts.
- implementing a full range of the best comprehension teaching practices currently available.

When comprehension is put first, it follows that instructional time will be suitably apportioned. Although comprehension of print text presupposes a degree of accomplishment in sub-skills such as phonemic awareness, the alphabet, and word knowledge, putting children on a diet of these sub-skills until print fluency is attained is not warranted. In other words, thought-provoking comprehension instruction should not be withheld until children are expert word decoders. The Comprehension Problem Solving process outlined in this book includes strategies that have been successfully taught to kindergartners (Block & Pressley, 2007). Indeed, the prospect for all students to become active meaning makers depends on laying a solid foundation of comprehension strategy use in the primary grades alongside fundamental sub-skills. Educators must then continue to provide research-based comprehension instruction through middle and high school to assure all students are put on the road to a lifetime of literacy growth.

DIFFERENTIATING INSTRUCTION

In the past decade, states and local school districts have adopted many literacy policies and programs (e.g., high-stakes testing, teacher credentialing, and a

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raft of interventions) to address student achievement concerns. But no one strategy, method, or program has been found to be superior for *all* students (IRA, 2002; RAND Reading Study Group, 2002, p. xii). Nor is one likely to ever be found superior for all students. What can states and local school districts do to meet the challenge of teaching comprehension in such a manner that all students become adept at meaning making? Many choose to adopt a commercial basal series or another published program. The more promising approach, however, is one that is synthesized from comprehension research and adapted for particular students at particular schools (Pressley, 2006). This kind of custom-designed or "differentiated" instruction cannot be scripted or rigidly paced out. It is not the easiest way to teach, but it is key to the comprehension revolution.

Using "Five Factors" that influence comprehension success

Differentiated instruction draws from information about the educational context that is much more particular than the broad achievement statistics previously summarized. Picture successful comprehension as a textured fabric woven together with five threads. These "threads" are the specific characteristics of (1) learners, (2) texts, (3) tasks, (4) contexts, and (5) teaching (Lipson & Wixson, 1997; RAND, 2002). Considering comprehension from these five perspectives can give you fresh viewpoints about assessment and planning for inventive comprehension instruction. To get started, look at Ready Resource 1.2, which lists key questions linked to the Five Factors. These Five Factors are discussed further throughout this book.

Zeroing in on comprehension difficulties

Of course, any comprehension revolution must address comprehension difficulties. Interactions among the Five Factors of comprehension create an infinite variety of learner profiles. Finding *the* cause of an individual child's comprehension troubles is unlikely—multiple causes are the norm. It is important, however, to be aware of common patterns (RAND, 2002). Familiarity with the range of symptoms of comprehension difficulties will aid a teacher's understanding and help guide assessment and intervention. Here are examples of comprehension difficulties, using the Five Factors as organizers:

1. *Learner factors.* Ready Resource 1.3 summarizes common patterns.
2. *Context factors.* The place of learning may be physically uncomfortable or psychologically threatening.
3. *Text factors.* Diverse, stimulating, and appropriately leveled materials may not be available, or texts may be too restrictive (e.g., workbooks or computer drills used as mainstays).
4. *Task factors.* The comprehension task may be defined narrowly, with a focus on word-level tasks or memory-level thinking rather than problem solving to construct big ideas.

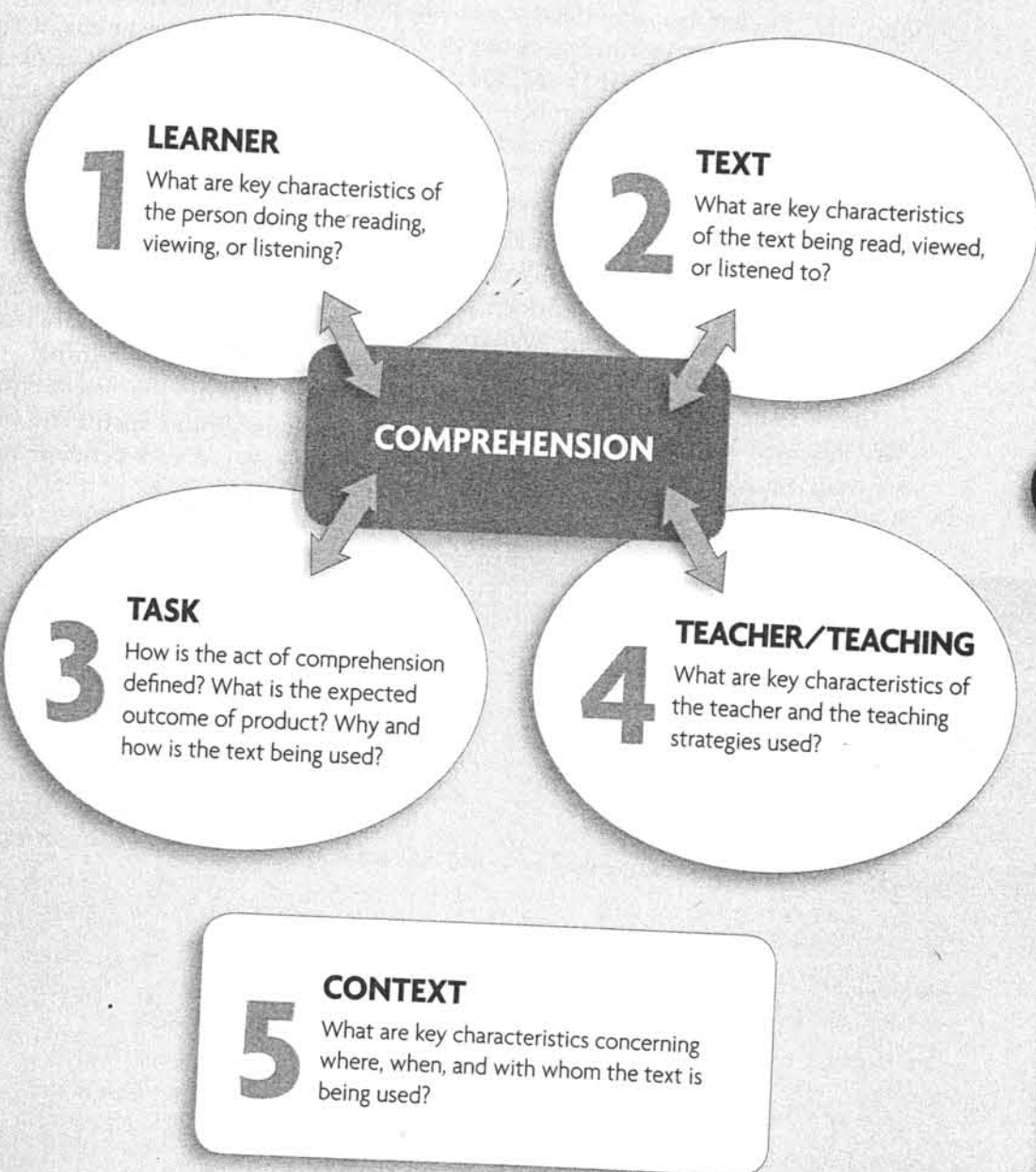
ASSESSING
LEARNER/TEXT
CONTEXT

STRATEGIES +
TEXT

Five Factors of comprehension.

BIG IDEAS

Text comprehension varies because of the influence of these Five Factors. When educators use these factors to guide assessment and planning, the result is differentiated instruction that addresses diverse needs of students.



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5. *Teaching factors.* Comprehension instruction may be too limited or at too low a level. Teachers may not present themselves as literacy models, leaving a void that can hamper learners who have no other source of inspiration and insight regarding how to think about texts.

Designing differentiated interventions

Once the teacher has identified a specific problem or problems, the best intervention may not be directly connected to the problem. For example, if the comprehension problem is weak short-term memory, memory work is not a guaranteed solution to the problem (Duke, 2007). Low achievers need instruction that meets their unique needs, not repetition of the same methods that have not worked (RAND, 2002).

Comprehension problems must be addressed student by student, on the basis of assessment evidence that details the most likely contributors to the problem. Thoughtful teachers, well versed in cutting-edge comprehension research, decide which interventions promise the greatest comprehension gains given the instructional time available. The Five Factors previously discussed serve as organizers for assessment and subsequent instructional planning.

Am I suggesting an Individualized Educational Plan (IEP) for every child? No. Research suggests that for most students, teachers should spend the bulk of their time on key instructional events, such as engaged independent read-

Learner characteristics: common comprehension difficulties.

- **Background:** inadequate experiences; failure to apply relevant prior knowledge to a text
- **Motivation:** unclear goals, lack of interest in the text or activity, or dependency rather than an independent orientation
- **Engagement:** inadequate amounts of reading practice that focuses on lack of active meaning construction
- **Memory:** problems with short-term or working memory
- **Oral language:** problems with listening or speaking (English), which are foundations for reading and writing
- **Comprehension strategies:** lack of or inappropriate use of a repertoire of problem-solving tools to make sense of diverse texts
- **Reading concept:** an incorrect idea of what reading and comprehension entail, so the reader may be passive or have low-level thinking
- **Vocabulary:** inadequate body of concepts and words that the reader recognizes automatically
- **Decoding:** insufficient tools to problem-solve unknown words
- **Fluency:** inability to read with expression, accuracy, and rate, which demonstrate understanding of word-based texts
- **Written language:** difficulties with processing the details and patterns in print that are needed to extract and construct meaning

ing and deep text discussions, that are embedded with the teaching of the comprehension strategies that comprise Comprehension Problem Solving. In the following chapters these main instructional literacy events are described. However, teachers often need more than a year to acquire and then effectively implement a full repertoire of research-backed comprehension instructional practices. Their success depends on the motivation to take on this study. This book is intended to be a tool for such work.

Learner Needs: Conditions for Success

This chapter has introduced the problems and possibilities surrounding comprehension. The path to success described in this book is not straight, and it can seem thorny, especially when teachers are challenged to consider the complexities of comprehension rather than implement a simple instructional recipe. How can teachers apply and adapt so much information for use with real children? It will take the rest of the book to answer that question, but bringing it down to thinking about a specific child will help.

Consider the case of Anna. She is in the third grade and can pronounce the first three hundred high-frequency words perfectly. But when Anna reads aloud, the words sound like a list. She does not put them together expressively, with phrasing and varied rate. Anna pronounces the words accurately and quickly, but when asked about what she is thinking, she is clueless. She says reading is "pronouncing words right" and "answering the teacher's questions." She is unable to name a single person in her life that she thinks is a good reader, except Torey, who "gets all A's." Anna says she hates reading, because it is boring. She says texting her friends is fun. When asked what she does when she doesn't understand what she reads, she again seems puzzled, but after a while she says, "ask the teacher."

These are just a few bits of information gained from an assessment that included an extensive interview with Anna. But it is enough for us to practice some instructional problem solving, using the Five Factors as anchors. Begin by comparing the information on Anna with the common difficulties listed in Ready Resource 1.3. What do you notice? What else would you want to know about Anna? How might you get more information?

Next, consider how students' literacy and comprehension development depend on their experiencing conditions that meet their needs. While children vary greatly, they also possess *common* needs (e.g., NCTE, 2004). The following key conditions reflect common learner needs. From these categories, try pulling ideas that might help meet Anna's needs.

CONTEXT

- *Learning spaces*: classrooms that are physically and psychologically supportive of inquiry into the meanings of diverse texts. A variety of appropriate materials is available, and the teacher's personality and disposition create a culture of respect and optimism.

TEXT

- *Engagement*: large blocks of time allotted for engaged reading, listening, and viewing; interaction with a variety of content-rich texts that take the diverse forms typical of the 21st century

TASK

- *Comprehension concept instruction*: explicit teaching (e.g., demonstrating) about the definition of comprehension, with focus on active meaning making by students. For example, students come to understand that reading is making meaning or sense from text, which is more than literal-level thinking about text.
- *Instruction in fundamental sub-skills*: teaching that includes (1) decoding, (2) word study, and (3) fluency. Students gain a solid repertoire of tools for independently problem-solving unknown words; receive vocabulary instruction that creates interest in words and focuses on concept development, wide reading, and discussion; and develop clarity about how to (a) apply "musical" elements to *express* understanding, (b) use flexible rates, and (c) increase the body of words they can accurately pronounce.

TEACHERS AND TEACHING

- *Literacy models*: opportunities to interact with people who show they enjoy reading and demonstrate how to comprehend well. For many students, the teacher must take the first position in providing a clear vision of how successful comprehenders think about texts.
- *Motivation*: teacher use of engagement strategies directed at activating students' intrinsic motivation. This happens when students: (a) are learning important content, (b) can pursue their own interests, (c) have choices, (d) have opportunities to do group work, and (e) have chances to perform or exhibit for an audience (Guthrie, 2002; NCTE, 2004).
- *Strategy instruction*: explicit teaching and scaffolded practice to help students learn a set of thinking tools for making sense of texts (Pressley, 2002).
- *Discussions*: high-level talk about important content (e.g., science and social studies) that invites students to inquire into big ideas and encourages students to generate important questions (Pearson, Harvey, & Goudis, 2005).
- *Assessment*: a variety of ways for students to show their strengths and needs so that teachers have solid information for planning differentiated instruction. Students also need tools that help them understand and participate in gauging their own progress.
- *Instructional routines*: main events that regularly occur during a literacy block of time, as well as instructional habits (e.g., asking open or "fat" questions that provoke diverse responses) embedded in content instruction.
- *Response options*: instruction that enables students to create verbal and non-verbal texts that show understanding and that others can read, listen to, or view.

snapshot revisited



I invite you to review the snapshots of Teachers A, B, C, and D in light of this chapter. My thoughts about the teachers' comprehension definitions and instructional practices are outlined below; compare with your own thoughts.

Teacher A

The use of literature and observation-based assessment is important. However, there is no evidence of purpose setting—and purpose is integral to inquiry-based problem solving that produces comprehension. There are many reasons to read: to get specific details from a recipe, to uplift your spirits with a poem, or to gain a new perspective from a newspaper cartoon. Such purposes set specific comprehension processes in motion and direct the nature of the problem-solving process that readers use to make sense of texts. A teacher may assign some purposes, but students need to learn to select their own purposes.

All the questions Teacher A asks require literal responses. This teacher seems to have a surface or low-level definition of comprehension: literal memory of literary elements—no meaning construction by students.

Teacher B

A purpose is set, and the sticky notes could be helpful. Reading instruction in the content area of social studies is embedded. However, there is no discussion, which is a high-priority comprehension strategy. I wonder about the types of questions this teacher uses; they seem to emphasize right-or-wrong answers. Teacher B seems to think comprehension means extracting information to answer his questions using specific text references—no student construction of meaning.

Teacher C

The teacher provides a focus and uses a story map as a scaffold. She uses a rubric for grading, which would make the criteria for grading clearer. The teacher gives students a purpose—read to retell—but if this purpose is used exclusively, students will think comprehending means recalling facts. Even when retelling involves paraphrasing, it focuses on memory of facts and not on constructing big ideas. This teacher seems to think comprehension means recalling and retelling facts.

Teacher D

The worksheet focuses on explicit main ideas, but main ideas reside in paragraphs. Main ideas may not at all represent big ideas in whole texts. What's more, limiting students' focus to explicitly stated ideas denies the existence of *implicit* ideas, which even young children can and should be taught to derive (Walmsley, 2006). Use of collaborative groups provides attention to the social nature of literacy, but testing comprehension after reading is not teaching comprehension. Comprehension accumulates as readers engage in the meaning-making process before, during, and after reading. To get at the heart of comprehension—making sense by focusing on big ideas—the multiple-choice questions would need to be more than choices among literal

CPB
Defined

BDA

CPB

facts. To create meaning or sense, the reader has to pull together important information in a text, connect it to his or her prior knowledge, and construct supportable conclusions about the big ideas. Understanding involves a mental leap that relies on a set of strategies for problem solving for meaning. Teacher D seems to think comprehension means picking out the stated main ideas and supportive details.

In general, it is of great concern that Teachers A through D do no modeling of important *comprehending* strategies (teaching process) that would lead to *comprehension* of found and constructed big ideas (product). They all fall into a "mentioning and testing" pattern of comprehension instruction that has not proved effective.

Conclusion

Six hours of instruction a day for 180 days cannot overcome the effects of a deprived and impoverished home environment for 18 hours a day for 365 days a year.

W. MATHIS, 2005, p. 590

This book attempts to make a case against this quote. Chapter 1 began the case by previewing a different kind of comprehension instruction than what is currently the norm. The chapter acknowledged issues faced by American teachers that relate to comprehension and presented key literacy definitions in order to lay a foundation for considering a more contemporary approach. It presented a brief profile of our national comprehension problems, which included an overview of the dimensions of our unacceptable achievement levels. I discussed sluggishness in implementing an impressive body of research on comprehension instruction was discussed and outlined major findings about basic needs for literacy success.

Unfortunately, few teachers currently receive adequate pre-service preparation or ongoing professional development focused on reading comprehension (RAND, 2002). Comprehension achievement is a condition that can be changed, but change depends on teachers. In a world that is seeing rapid changes in communication, teachers must move beyond last-century literacy definitions and practices. A first step is putting comprehension first.

1 big ideas

Big ideas are the key product of comprehension, and the most important big ideas are the ones you generate yourself. The following examples from this chapter may help you jump-start your own synthesis.

1. A teacher's definition of literacy, reading, and comprehension changes how she or he actually teaches.

2. Comprehension includes extracting information but focuses on constructing meaning.
3. A 21st-century definition of literacy, based on the abilities needed to succeed outside of school, should determine the nature of comprehension instruction.
4. The concept of *text* has evolved to include non-verbal materials, non-print works, and digital texts.
5. Low reading/comprehension achievement reflects an educational and public health problem affecting our nation's economic security and overall well-being.
6. Comprehension difficulties manifest in a range of characteristics related to these Five Factors: the nature of the learners, the learning context, the task of comprehension, text characteristics, and teaching qualities.
7. All students, regardless of their idiosyncrasies, have common needs that must be met for literacy development to proceed successfully.
8. Comprehension research has reached a critical mass—enough to support an instructional revolution.
9. Teaching students how to do inquiry-based problem solving with diverse texts is a promising approach to comprehension.

a look ahead

Reading is not an innate skill. On the alphabet level, there are 26 letters, 44 sounds, and more than 70 ways to spell these sounds, many of which cannot be understood through logic. Comprehension, however, is different. Comprehension involves executing coordinated thinking to solve problems. Problem solving is how humans have survived for millennia, and it is why we thrive. In Chapter 1 I previewed an inquiry-based approach that focuses on teaching students to use problem-solving strategies to construct meaning from diverse texts. The Comprehension Problem Solving process guides readers in deriving big ideas by way of self-questioning. Chapter 2 describes this approach, which assumes that problem solving is an innate skill.

response options

Comprehension is facilitated when readers engage in problem solving to make meaning of texts. Following are suggested responses to this chapter that individuals or, preferably, small groups may use in the comprehension process.

1. List three to five of the biggest ideas that now make sense to you about (a) what comprehension includes and (b) how it should be taught. Explain your reasons for your choices.

2. Return to the opening questions to check your understanding. List points that you think you need to learn more about.
3. Create "if-then" statements about instruction, using the definitions of literacy, reading, comprehension, text, inquiry, and so on. For example, "IF literacy is the ability for effective communication of thoughts and feelings through comprehension and composition of diverse texts, THEN teachers should . . ."
4. Based on the concept of comprehension introduced in this chapter, suggest one way to change the instructional practices of each of Teachers A-D to increase students' comprehension.
5. Create a song, poem, or piece of visual art that expresses a definition of comprehension that focuses on making meaning from diverse texts.
6. Choose one of the common comprehension difficulties students encounter (see Ready Resource 1.3). Describe how you might address that difficulty, using the list of conditions most learners need for success. Alternatively, share your ideas for helping Anna, who was described in the section called "Learner Needs: Conditions for Success."
7. Use the Five Factors to analyze your own comprehension of this chapter. Use the key questions listed in Ready Resource 1.2.
8. Pretend that you have made it to round two in an interview process for a teaching position in a school that has a track record of low comprehension achievement. The principal invites you to explain to a teacher team the cutting edge views you have to revolutionize instruction. Outline key talking points about "comprehension first" that you will present.